

REMARKS/DISCUSSION OF ISSUES

Upon entry of the present amendment, claims 10-19 are pending in the application. Claims 10 and 14 are the independent claims.

Objections

The objection to the abstract is moot in view of the replacement abstract.

The approval of the proposed changes to Fig. 2 is gratefully acknowledged. A replacement sheet with the changes is enclosed.

Rejection

Claims 3-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's admitted prior art (APA) in view of *Loan, et al.* (U.S. Patent 6,296,711 B1). These claims have been cancelled. However, as the applied art may relate to the new claims, applicant offers the following remarks.

The establishment of a *prima facie* case of obviousness required that *all* of the elements of a claim be found in the prior art. It follows that if a single element of a claim is missing from the prior art, a *prima facie* case of obviousness cannot be properly established. Moreover, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is a teaching, suggestion or motivation to do so found in the references relied upon.

Claims 10 and 14 are each drawn to an apparatus for manufacturing a semiconductor device. Claim 10 features:

``...a **plasma detecting device** provided inside said upper electrode, wherein operation of said parallel-plate dry-etching

apparatus ceases if a pressure of a plasma measured by said plasma detecting device is lower than a predetermined value.'';

Furthermore, claim 14 features:

*... a **first plasma detecting device**, which measures a first pressure of a first plasma, provided inside of said upper electrode;*

*a **second plasma detecting device**, which measures a second pressure of a second plasma, provided within said dry etching apparatus in which a wafer is placed...''*

As the Office Action notes, APA lacks first and second pressure detecting means. Applicant notes that APA lacks the disclosure of a plasma detecting device as well.

The Office Action relies on *Loan, et al.* for the teaching of pressure sensors.

First, applicant notes that the reference to *Loan, et al.* is drawn to a chemical vapor deposition (CVD) apparatus. As such, the apparatus to *loan* does not and would not include the featured plasma detection devices of independent claims 10 and 14. Accordingly, it is respectfully submitted that the applied art lacks at least one of the elements of independent claims 10 and 14. For at least this reason a *prima facie* case of obviousness cannot be established based on the applied art.

Second, and notwithstanding the traversal discussed immediately above, applicant respectfully traverses the propriety of the combination of *Loan, et al.* with APA. To this end, claims 10-18 feature a plasma detector and plasma detectors. The reference to *Loan, et al.*, being drawn to a CVD apparatus would not be useful to one skilled in the etching art in addressing the deficiencies of the plasma etching device of APA. To this end, the disciplines of plasma etching and CVD

both relate to semiconductor processing, but are so far afield of one another, that one deft in the art of etching would not be motivated to combine a reference drawn to CVD to attempt to address the problems encountered in plasma etching.

For at least these reasons, applicant respectfully submits that the combination of *Loan, et al.* and APA is improper and should be withdrawn.

Conclusion

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact William S. Francos, Esq. (Reg. No. 38,456) at (610) 375-3513 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees under 37 C.F.R. \$1.16 or under 37 C.F.R. \$1.17.



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Enclosure: One Sheet of Replacement Drawings